

HorizonSat is recognized as a key provider of satellite communications services in the Middle East, Asia and Africa. Supporting institutional clients in the fields of Telecommunications, Broadband, Corporate Internet and Broadcasting, HorizonSat attributes its success to its dedication in implementing solutions that leverage the latest satellite technologies and support through its 24/7 NOC.

To serve our clients more effectively, we have enhanced our service through our state-of-theart teleport, Horizon Teleports, strategically located in Munich, Germany covering a look angle from 55 degrees West to 78 degrees Fast.

Horizon will continue to work closely with its customers, focusing on their objectives and creating solutions that ensure continued success in their mission critical applications.

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#### Happy Holidays

Wow! What a year it has been! This year the satellite world has been in a tizzy with launches, mergers, buyouts and increased capacity. Eutelsat and Arabsat have both launched new birds with beams over the MEA. Es'hailsat has partnered with Arabsat and broadcasts from 26.5-degrees East; it is also in the midst of building its own teleport in Qatar. Furthermore players like Yahsat and Intelsat are discovering the lucrativeness of serving Africa, and have set up some impressive partnerships in the region.

The industry has only gone from strength to strength, with an increased focus on expansion even while customers are vying for lower costs per bit. Some HTS satellite have already been launched, while others are scheduled for early next year. This is becoming a game changer, and manufacturers and solution providers are tailoring their offerings to take advantage of it.

In other news, we had the best ever turnout for our summit and awards, and I'd like to personally thank all of you who came and supported us with the event. You are the reason we strive to do better every year, and you are the reason we achieve just that. I'd also like to wish hearty congratulations to all the awards winners. You are truly deserving of the accolades, and with this recognition we hope to see you reach even further for the stars.

I'm looking forward to working even more closely with everyone in the industry next year. If you have any ideas for features or want to see more of something in the magazine, I'd love to hear your feedback and comments. Please send me an email or call the number in the panel to your left.

Have a wonderful December, and Happy Holidays to you all.

#### Clayton Vallabhan

Editor

#### In this edition:



"It is testament to our strategy of connecting communities with the shows and channels they relate to and want."

Sami Boustany, CEO, Yahlive

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"We are delighted to see EUTELSAT 3B's increasing weight in the African landscape and to be part of this continent-wide move to digital."

Michel Azibert, Chief Commercial and Development Officer, Eutelsat

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"When you talk about a large number of schools in a country, people are not willing to pay premium pricing." Koen Willems, Market Director, Newtec

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"We take pride in the fact that the technology assisted significantly during the search effort for Air Asia QZ 8501." David Moss, Director of Government Services,

Thuraya

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# PRIME ORBITAL SATELLITE POSITIONS PREMIUM SOLUTIONS

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#### **Future of Education**

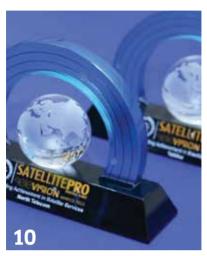
Using satellite-based solutions, organisations are able to bridge vast distances to bring education to some of the world's most remote locations

#### **SatVertical**

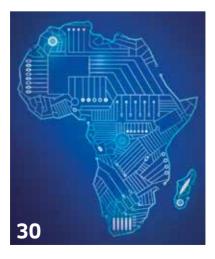
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#### **Year in Review**

2015 was quite a busy year for the satellite industry. We look at some of the top stories that made headlines throughout the year



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#### AfricaCom 2015

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Satellite communication solutions played a key role in Indonesian National Search & Rescue Agency efforts to find Air Asia QZ 8501

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#### Rise of Nanosatellites

MBRSC is allowing for universities in the UAE to nominate students to design, build and launch a nanometric satellite in coordination with the Centre



#### **UAE Space Agency Advisory Committee holds first meeting**

The Advisory Committee of the UAE Space Agency held its first meeting in Abu Dhabi, in the presence of the Board of Directors and the Agency's senior management team. The meeting, held over two days, saw participants discuss the Agency's general strategic framework, the country's position in the space sector, and future courses of action. The meeting was attended by HE Dr Khalifa Al Rumaithi, Chairperson of the UAE Space Agency; Dr Mohamed Nasser Al Ahbabi, Director General of the Agency; Dr Saeed Khalfan Al Dhaheri, Advisor to the Minister, Information Systems; Jean-Jacques Dordain, former Director General of the European Space Agency; Dr Charles Al Achi, Director Jet Propulsion Laboratory and Vice President of the California Institute of Technology; Dr Farouk Al Baz, President of the Center for Remote Sensing at Boston University; Dr Tayeb Kamali, Director of the Higher Colleges of Technology at the state level; Dr Mazlan Othman, former



head of the United Nations Office for Outer Space Affairs and former Director General of the Malaysian National Space Agency; Dong-Sung Park, CEO of Satrick, a provider of solutions for Farth observation missions; Ryouichi Imai, Vice President of the Japan Aerospace Exploration Organisation; and Sir Martin Sweeting, Director General of the Surrey Space Centre. The meeting opened with a presentation by Dr Al Ahbabi, who talked about the mission, future vision and institutional strategy of the Agency. In addition, Dr Al Ahbabi also spoke about the Mars Probe, the project timeline and the current level of support and cooperation in this context. A number of topics were discussed, most notably state policy in the field of space, current and future draft laws, the latest developments related to technology, investment in human resources and future trends in the space sector.

+ www.space.gov.ae

#### **YAHLIVE ANNOUNCES 43-CHANNEL BOUQUET FOR GREATER MAGHREB**

Yahlive has announced the launch of a 43-channel bouquet for the Greater Arab Maghreb region, following the signing of a new partnership with Sahli Media Group in Paris. Yahlive viewers across northern Africa will gain access to the new channels, 20 of which are only available exclusively through Yahlive.

Commenting on the new channels, Sami Boustany, CEO of Yahlive, said: "We are excited to be serving the greater Arab Maghreb communities with this new



bouquet of channels. It is testament to our strategy of connecting communities with the shows and channels they relate to and want."

He added: "We have worked closely with regional broadcasters to ensure we are delivering familiar local channels, along with international favourites. This latest development has increased the available channels by 25%, enabling viewers to access over 200 channels from all over the region."

"Bringing a bouquet of exclusive local channels dedicated to our region's viewers will not only give them more choice, but will allow other local broadcasters to join, thus creating a Greater Maghreb satellite TV hub," added Samir Sahli, CEO of the Sahli Media Group.

Yahlive viewers across the Maghreb region can now access the free-to-air channels, bringing them a wide range of news, entertainment and lifestyle content. with a line-up of popular home-grown TV entertainment and a variety of local channels.

www.yahsat.ae

#### ST TELEPORT TO BE ACQUIRED

Speedcast has announced that it has entered into a definitive agreement to acquire ST Teleport, a leading satellite communications services provider based in Singapore. The acquisition includes ST Teleport's world-class teleport facilities and data centre infrastructure in Singapore, a major hub in Asia for global maritime and oil & gas customers. The acquisition enables SpeedCast to remain the partner of choice for satellite communications in Asia-Pacific and further strengthens the company's position in the maritime and energy sectors. ST Teleport focuses on maritime, energy, enterprise and media verticals and serves a strong base of local and international customers.

As part of its work servicing offshore companies, it has obtained various certifications for quality, environmental, health and safety standards and has a team of experienced and certified engineers supporting its customer base.

+ www.speedcast.com



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#### Intelsat 29E scheduled to launch on January 27, 2016

Intelsat has announced that
Intelsat 29e, the first of the Intelsat EpicNG high throughput satellites, is scheduled to launch on January 27, 2016, aboard an Arianespace Ariane 5 ECA launch vehicle from the Guiana Space Center in Kourou, French Guiana.

Manufactured by Boeing, Intelsat's EpicNG satellites operate in both C- and Ku-band, and are fully interoperable with the entire Intelsat satellite fleet. The Intelsat EpicNG satellites will operate the most advanced digital payload commercially available, providing commercial and government customers access to high throughput capabilities, which will result in a flexible broadband infrastructure that scales to meet their needs.

Located at 310° East, Intelsat 29e will replace Intelsat 1R and Intelsat 805. The payload will enable the delivery of



enterprise-grade broadband services to fixed and mobile network operators, aero and maritime mobility service providers, and government customers operating throughout the Americas. The

satellite will also provide spot beams for mobility customers serving the heavily trafficked North Atlantic region.

+ www.intelsat.com

#### INTELSAT APPOINTS BRIAN JAKINS AS REGIONAL VP OF SALES, AFRICA

Intelsat has announced that Brian Jakins has been named the company's Regional Vice President of Sales in Africa, effective immediately.

Jakins will be based in Johannesburg, South Africa and report to Jean-Philippe Gillet, Vice President, Europe, Middle East and Africa.

With over two decades of experience in the technology sector, including services to enterprises and mobile



operators, Jakins will lead Intelsat's African sales team and support the growth of Intelsat's broadband, mobility and media customers operating in the region.

"Brian has a proven track record of developing strong customer relationships and delivering innovative solutions that have enabled telecommunications companies in Africa to grow their businesses in the most cost-efficient manner," said Jean-Philippe Gillet.

"His expertise and understanding of the opportunities facing media and broadband customers in the region will be essential, particularly as we prepare to launch Intelsat 33e, our nextgeneration Intelsat Epic<sup>NG</sup> satellite.

"I look forward to working closely with Brian and his team as Intelsat brings new satellite solutions to Africa that will deliver the higher performance and improved economics necessary to allow customers in the region to meet changing content distribution and broadband demands, and capitalise on fast-growing new applications coming to market."

+ www.intelsat.com

#### **ABS, ARABSAT SEEK EXPANSION**

ABS and Arabsat pen capacity agreement ABS and Arabsat have announced that they have signed an expansion capacity agreement on ABS-3A for a multitransponder, multi-year deal for Ku-band payload. The additional capacity will be used for different MENA customers, in particular Saudi Arabia.

Under the agreement, Arabsat will use the new bandwidth, on ABS-3A at 3W, mostly for data services for enterprises, banking and government institutions. ABS-3A, an all-electric propulsion satellite, entered commercial service on 31 August. The satellite features 48 C- and Ku-band transponders (96 x 36MHz equivalent) and is equipped with high-performance beams to support rapidly growing markets in the Americas, Europe, the Middle East and Africa. ABS-3A provides expansion capacity to reach markets servicing highgrowth data, video, mobility and government applications.

"We look forward to continually strengthening our relationship with Arabsat in the future," said Tom Choi, CEO of ABS.

+ www.absatellite.net



**NorthTelecom** 

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- ₡ iDinect service
- MVSAT
- Private network



## TV&Radio Broadcasting

ST-2KU (K3Beam)

Yahsat KU East Beam

Yahsat C-Band



#### **SpeedCast Deploys Network for SCI**

SpeedCast France has announced that it has successfully deployed a 35-site network for Save the Children International (SCI), an international NGO with its central office in London, UK. The new satellite service provides connectivity to a network of 35 C-band VSAT systems across 35 sites in Africa.

The migration process required work across multiple countries and had to be completed in a highly efficient manner, due to a tight deadline to complete the roll-out before the previous provider switched off the existing service. All sites were successfully deployed ahead of the

deadline, and as a result there was no disruption of service for the customer.

SpeedCast trained members of SCI staff as VSAT installers at SpeedCast's teleport in Germany. This was a great investment, as one of the team members was able to quickly apply the training and completedthe installation of a number of VSAT units in Sierra Leone during the ebola emergency. SpeedCast also supported SCI in Somalia, where SCI staff re-pointed all of the VSAT systems to the new network. This approach was particularly helpful to SCI.

+ www.speedcast.com



#### **ARABSAT'S BADR-7 LAUNCHES FROM FRENCH GUIANA**

Arabsat's first sixth-generation satellite, Badr-7, has been launched successfully from Kourou in French Guiana. An Ariane 5 rocket blasted off at 21:34 GMT on Wednesday 11 November carrying Badr-7, a Eurostar satellite manufactured by Airbus Defense & Space with Thales Alenia Space, to be placed in Arabsat's exclusive orbital hotspot 26° East.

This is part of Arabsat's ambitious expansion projects, and is the sixth satellite launched during the past seven years on three different orbital positions, providing diverse services of TV

broadcasting and telecommunications services. Badr-7 will join Arabsat satellites Badr-4, Badr-5 and Badr 6 on 26° East.

This successful launch comes thirty years after the launch of Arabsat's first generation of satellites, which was supervised by the first Arab Muslim astronaut, His Royal Highness Prince Sultan bin Salman bin Abdul Aziz, now President of Saudi Commission for Tourism and National Heritage (SCTH) during his famous space journey aboard the shuttle Discovery in 1985.

+ www.arabsat.com

#### MBRSC TAKES PART IN DUBAI AIR SHOW 2015

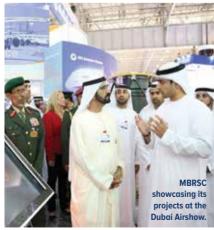
MBRSC is taking part in the Dubai Air Show 2015, which will be held 8-12 November at Dubai World Central.

The Centre will showcase its main space projects and space technologies laboratories, satellite applications, space imaging services and ground station services.

Among the main projects showcased by the Centre is the Emirates Mars Mission – Hope Probe, entrusted to MBRSC for the preparation, implementation and supervision of all phases of the mission to explore Mars. They will also highlight the achievements of Dubaisat-1 and Dubaisat-2, which provide space imaging services, as well as KhalifaSat, the first satellite developed purely by Emirati nationals and expertise.

H.E. Yousuf Al Shaibani, Director General, Mohammed Bin Rashid Space Centre, said that the exhibition is one of the world's largest aviation exhibitions and the largest in the Middle East, and an ideal platform to shed light on the Centre's projects and objectives of encouraging scientific innovation and technological progress in Dubai and the UAE.

He noted that "the space plans and projects in the UAE reflect the wise vision of our leadership to enable the UAE to become a leading global centre in the space sector".



+ www.mbrsc.ae

+ www.dubaiairshow.aero



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## Winning Formula

The satellite section of the 2015 ASBU presents BroadcastPro Selevision Awards paid homage to the crème de la crème of the satellite industry

























### Satellite Operator of the Year EUTELSAT S.A.

With the launch of its new satellite Eutelsat 8 West B, in August, Eutelsat has brought much-needed additional capacity to the 7/8-degree hotspot. In MENA, 52 million

households, consisting of 250 million people, watch a TV channel broadcast from this position. This number is only set to grow with Eutelsat's 8 West B.











### **BroadcastPro ME** Awards



## الحول الحول المسابق ال



#### Best MCN of the Year

#### **UTURN ENTERTAINMENT**

UTURN is one of the largest and most diverse MCNs in the region. The company started in Saudi Arabia as a digital production company in mid-2010, with original YouTube shows. The network now has more than 40 active YouTube channels.

#### Best MCN of the Year DIWAN VIDEOS

Diwan Videos is a more recent entrant but has already become one of the top 50 MCNs globally in terms of viewership. It generates more than 350 million views a month and manages more than 400 channels, making it one of the more successful players in the market.

#### MENA OTT Trendsetter of 2015

#### **BEIN SPORTS CONNECT**

beIN Sports Connect was unanimously chosen as the winner for this category by the judges for several reasons. It claims to have the highest number of subscribers and growth month on month in the MENA region. It has 18 live streaming channels and is the only platform to stream in 1080p.





**CENTRE BUILD** 

OSN undertook the redesign and upgrade of its network operations centre and its central apparatus room, as well as its editing areas, to cope with additional services and platforms. The judges were impressed by the scale and volume of the solution, which has made it a world-class operation.



#### Innovative Production of the Year BARAJOUN ENTERTAINMENT

Bilal from Barajoun is the first CG-animated feature fully funded and produced in the Middle East. It is a blend of art and realism, demonstrating great attention to detail. This attempt to create a world-class feature length animation with international appeal was a unanimous winner among our filmmaking experts.



#### Long-form Production of the Year RABBI ZIDNI ILMA FROM THE GOLD MINE FILMS

Whether it was the art of storytelling, the composition or the voiceover, the documentary kept us riveted from the first moment. The director, along with two renowned Pakistani photographers, embarks on a journey and meets some inspiring individuals along the way.



### **BroadcastPro ME** Awards



#### ASBU BroadcastPro ME 2015 Innovative Project Award

#### **AMAGI MEDIA LABS**

NDTV deployed Amagi's regionalisation platform in the Middle East, based on its low OPEX and no CAPEX. As part of the solution, the vendor inserts unique, invisible and inaudible watermarks on ads that need to be replaced in the Middle East.



#### MENA Broadcast Trendsetter of 2015

#### **AL JAZEERA MEDIA NETWORK**

Al Jazeera is taking an innovative approach to reconfiguring its bureaus around the globe. The broadcaster built a prototype solution in Beirut using state-of-the-art technology for newsgathering and broadcast. Beirut is the first of 80 international bureaus to be upgraded.



#### 2015 MENA Systems Integrator

#### **TEK SIGNALS**

Tek Signals has been involved in several big projects in the Middle East. Most recently, it undertook projects for Al Jazeera Arabic, Es'hailsat and Sharjah Media Corporation. This year, the systems integrator stood out for meeting exceedingly tough deadlines and delivering high-quality solutions.



#### Best Telco/Broadcast Initiative

Du took on a significant challenge in October when it decided to launch du View, an OTT service for its subscribers. As one of only two telco operators in the UAE, du had to create a state-of-the-art OTT offering that works well in a competitive regional environment.



#### Editor's Choice Award Special Recognition Award

#### AL RAYYAN TV

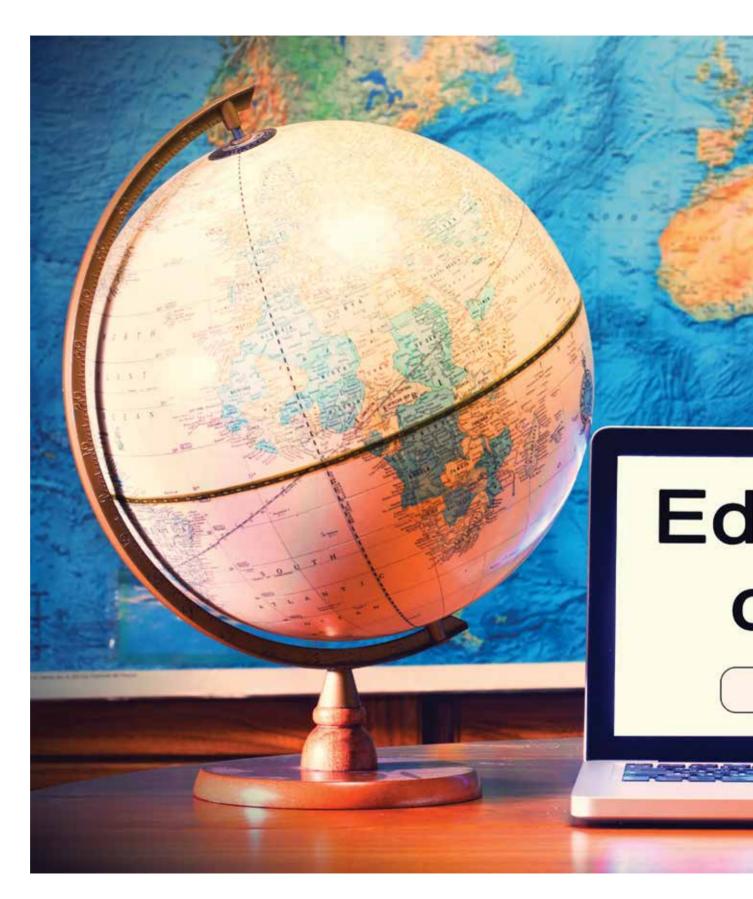
Al Rayyan attempted to virtualise its playout facility for more flexibility and efficiency. They dared to experiment, and came up with an open-ended sophisticated solution that is future-proof and highly resilient.



#### Editor's Choice Award CTO of the Year

#### MOHAMED ABUAGLA, Al Jazeera Media Network

Being at the helm of the Al Jazeera Work Transformation project requires determination, in addition to a strong technical background. Mohamed Abuagla achieved all this and more.





Satellite broadband connectivity enables distance learning – an essential tool for education, enterprise, medical and relief organisations in the 21st century. Using satellite-based solutions, organisations are able to bridge vast distances to bring knowledge, assistance and resources to those that need it – often in some of the most remote locations around the globe.

Intelsat and Mindset network have been working in Africa, doing just that. "Our fully integrated solutions play a critical role in helping extend the reach of Mindset programmes, providing services that enable the delivery of Mindset's quality educational resources to communities in Africa," says Jean-Philippe Gillet, VP Europe Middle East Africa Sales, Intelsat.

"As a result, Mindset has developed 1,500 hours of video content for teachers, students, health care workers, patients, youth and the general public. Content ranges from health-related topics and general and personal hygiene to physical sciences, mathematics, life sciences, geography, accounting, math literacy, business studies, economics, computer applications technology, information technology and English. This effort has delivered this material to schools, hospitals and clinics and homes, enriching the lives of millions in Africa."

According to UNESCO, rural populations represent 70% of the world's poor and 72% of the population of the least developed countries. This population is missing the basic infrastructure and social services offered to us in the rest of the world. Over the years, families expanding and growing in rural areas continue to face the same issues their ancestors have challenged – minimal connection in all its forms to the outside world.

David Murphy, CCO, Yahsat, thinks that distance-learning opportunities through the use of Community Multimedia Centres and ICT, with support systems at the school and classroom level to help teachers use active learning techniques, is what is needed.

"Encouraging adequate data collection focusing on the issues affecting target groups are just some of the suggested interventions by the FAO/UNESCO



"Rural schools, learning centres and small colleges have a pressing need for internet connectivity in order to keep up with international standards"

DAVID MURPHY, CCO, Yahsat

Education for Rural People (ERP) flagship to address current educational challenges.

"Rural schools, learning centres and small colleges have a pressing need for internet connectivity in order to keep up with international standards. YahClick provides instant connectivity and cost-effective internet access, which can enhance learning institutions in the most remote locations."

Most e-learning programmes are initiated by governments and sponsorship by NGOs. The World Bank and UN also have plans in this area.

Koen Willems, Market Director Government, Defence and Mobility Satcom at Newtec, explains: "VSAT equipment is used, along with Newtec's multi-service platform Dialog. The network is being used to access different schools. The internet can be used for research projects, and can also be used by teachers to get the latest school programmes and documentation that can be used in classrooms."

"There are also capabilities where people are being educated from home. In this case you're talking more about distance learning. In fact as a multiservice hub, you can support video, voice and data, and you can have the same network connecting the schools, as well as people at home who have subscribed to different learning programmes. The distance learning programmes can be so that the students are following courses live online, or that they have access to content like YouTube movies and lesson packages so that they can also study themselves without a live tutor."

Each market has different dynamics and Yahsat's Murphy says the company must remain agile in terms of its go-to-market strategy and operating model, to ensure it has the right solution in each.

YahClick appoints service partners who understand the requirements of each country, bringing fast and efficient communications to many regions where the demand for reliable internet in education is growing.

"The service is quick to install and easy to operate, and offers direct connection through satellite to subscribers. Teachers and students using YahClick have access to friendly and helpful technical and customer care support through our service partners that makes their experience as efficient and easy as possible," says Murphy.

Newtec has had projects where information has been multi-cast to iPads. Willems says, "There is a tool that allows information to be multi-casted from schools to different pupils. We have already set up platforms in schools, and we're seeing a huge interest in the education vertical. Higher-level bodies are all of the consensus that if you have to bring stability and democracy in the region, then you have to start with the children and education is key. They need to see that they can form their own opinion and think clearly. Also, economically you create more stability, and this is where a lot of

## AIM HIGHER

It's not enough just being the best. We work harder to be better every day. Together, we can aim even higher.





For over 25 years we have been advancing our company to provide the very best services for our customers. Today, we continue to set our goals even higher, working closely with our partners to go further than ever before.



#### SatVertical: Education

He adds: "There is a lot of e-learning that is going on in Africa, and one of the key programmes I can talk about includes a project that we did in Morocco. The project, which was awarded by the

these programmes are being lauded."

includes a project that we did in Morocco. The project, which was awarded by the Morocco Ministry of Education as part of the GENIE project, saw internet delivery to 4,000 schools. The service provides internet access for students, while teachers will be able to benefit from courses through distance learning. In the past we have also done projects in China, Afghanistan, DRC, Albania and Greece."

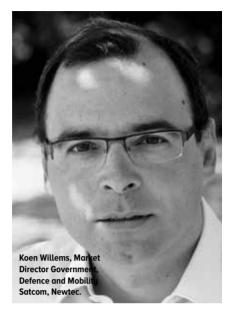
Gillet explains that Intelsat's satellite solutions have enabled effective distance learning programmes around the globe, from Africa, to the Middle East, to Latin America and islands in the Pacific. He says the positive impact of satellite solutions can be seen in Haiti, which continues to recover from an earthquake that struck approximately six years ago. While the country continues to rebuild and regain its socioeconomic footing, Intelsat and On Call Communications are aiding more than 450 children who live in an orphanage five hours from Port-au-Prince.

"Since first enabling satellite communications services within 48 hours of the 2010 earthquake, On Call Communications, a provider of IP-based mobile satellite solutions, has expanded its services to include providing medical and education services to the orphanage using Intelsat's Galaxy fleet. A wireless network throughout the campus provides free voice circuits, internet access that delivers current lesson plans for the school and high definition video conferencing between the medical clinic and teaching hospitals in the US and abroad.

"The connectivity provided through the partnership has evolved to include adult learning, teacher training and a virtual exchange programme with school children in classrooms throughout the US. This project continues to connect a community to the world, creating a haven for the children and providing hope for the future," comments Gillet.

Murphy speaks about a project Yahsat was commissioned for in Pakistan, Education on Wheels. The operator took





"In developing countries or in rural areas, education through satellite is something that is changing the game. Now there is a quite a lot of capacity through HTS, where the cost per bit is being lowered. This will bring an interesting addition to education through satellite"

KOEN WILLEMS, Market Director, Newtec

on the project with one of its service partners in Pakistan and in partnership with TeleTaleem, a social enterprise delivering solutions for educational services.

The project is based on the use of a mobile satellite-enabled van, aka School Garee, to provide ICT-enabled learning services such as teacher training, student learning and assessments, through an advanced learning environment, to remote areas of Balakot, Mansehra and Khyber Pakhtunkhwa. The classroom sessions in these remote areas are conducted under the supervision of a tutor based in a major city such as Peshawar. Students use tablets to access the online content to perform their classroom activities, and thus require a stable and reliable satellite link for two-way video conferencing.

"The Business 2Mbps YahClick package was the perfect solution, as it satisfied the technical, commercial and application requirements. Essentially YahClick enables the Grade four and five students to access the widely available, but previously inaccessible, online learning content and tools. The YahClick terminals are also incredibly easy to power up using solar power.

"The YahClick service is delivered via Yahsat's second satellite Y1B, the first satellite in the region to offer internet connectivity through Ka-band multispot beams, meaning wider reach and reduced costs thanks to the use of smaller antennas, both for businesses and residences in outlying areas and remote regions," explains Murphy.

Every project has its challenges, and e-learning is no exception. Gillet thinks the challenges for distance learning providers are the same as for any of Intelsat's customers – how do they continue to efficiently and cost-effectively provide connectivity in remote regions and also expand their operations?

He explains that the strength of satellite – ubiquity of service footprint, reliability and cost-efficient delivery of high-quality content – make it a very effective solution for connecting remote regions. Satellite-based solutions provide critical infrastructure that enhances the quality of life of the communities it serves.

"All markets that lack terrestrial connectivity, combined with a massive demand for internet and a growing population, are hotbeds for satellite operators to expand their ICT in education offerings. The long-term effect of neglecting children's education is that there is a huge skills deficit among young minds now facing the world of work."

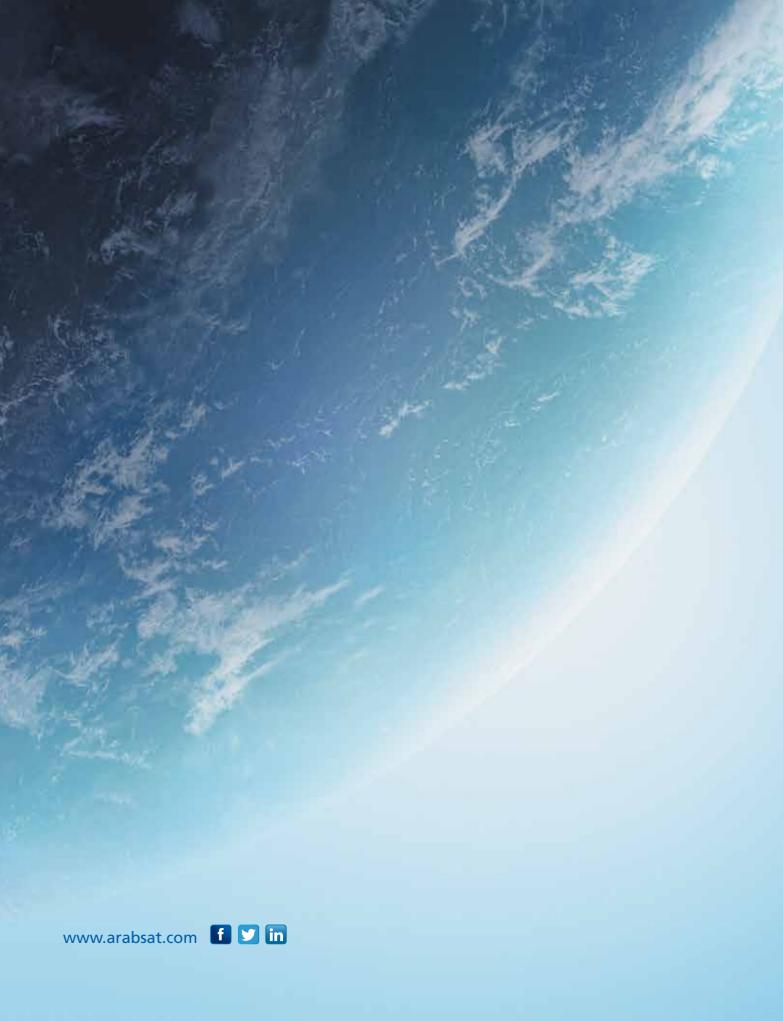
Willems adds that governments definitely realise the necessity to raise the level of education in their country,



so that there is no brain drain. Currently a lot of students go to other countries to study, and eventually end up settling there due to better prospects. The main challenge is funding, Willems explains.

"There are a lot of projects that don't have funding behind them. The decision-making process is also very long, so you have to be patient. When you talk about a large number of schools in a country, people are not willing to pay premium pricing. Sometimes NGOs too need efficient pricing, so that means as a company you need to give them an OPEX and CAPEX value. The equipment is very cost-efficient, and due to different efficiency technologies on the VSAT platform, makes a very good offering."

Willems concludes by saying: "Traditionally there has been the concept of teachers in the classroom, and though this will be there for the foreseeable future, there are other parallel packages also being created. For instance, there are packages where content is available on a database, or the internet, and students can work in study groups or individually with these programmes. In developing countries or in rural areas, education through satellite is something that is changing the game. Now there is a quite a lot of capacity through HTS, where the cost per bit is being lowered. This will bring an interesting addition to education through satellite." PRO





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## Review.

2015 was guite a busy year for the satellite industry. We look at some of the top stories throughout the year

#### **JANUARY**

#### AL JAZEERA MEDIA NETWORKS STARTS BROADCASTING FROM FS'HAIL 1

Es'hailSat announced that Al-Jazeera Media Network (AJMN) is now using the Es'hail 1 satellite located at the 25.5-degree East hotspot neighborhood to broadcast content to the full Middle East and North Africa (MENA) region.

Following one year of successful dual illumination using Es'hail

MARCH

EIAST AND MHI.JPG

1 satellite capacity and uplink facilities, Es'hailSat and AJMN said the formal switch over of broadcast services to Es'hail 1 took place on January 1 2015. All existing channels and new channel bundles were available from this date on Es'hail 1.



#### **APRIL**

#### **03B AND MEOSAT PEN CAPACITY DEAL**

agreement to provide trunking services to service provider MEOSAT.

**Dubai-based MEOSAT** 

is a next generation

internet service provider delivering high quality, reliable and efficient communications to the oil and gas industry. MEOSAT offers high performance coverage even to the sector's most difficult and challenging locations with end-to-end network management.

#### **FEBRUARY**

MHI CHOSEN FOR LAUNCH OF KHALIFASAT

Mitsubishi Heavy Industries, Ltd. (MHI)

received an order from the MBRSC

for launch services for the KhalifaSat

observation satellite. The KhalifaSat

satellite will be launched on MHI's H-IIA

launch vehicle together with GOSAT-2.

The KhalifaSat observation satellite

is MBRSC's third satellite, following the DubaiSat-1 and DubaiSat-2 respectively

launched in 2009 and 2013.

#### INTELSAT AND KYMETA PAIR UP TO PRODUCE SATELLITE ANTENNAE

Intelsat S.A. and Kymeta Corporation announced an agreement to design and produce flat, electronically steerable, Ku-band mTenna satellite antenna solutions that are optimised for the Intelsat EpicNG high throughput satellite (HTS) platform. The first Intelsat EpicNG satellite is expected to launch in late 2015.

Kymeta's flat, thin, light and low-cost satellite tracking antennas

will be designed to work seamlessly with Intelsat's satellite fleet, providing complete flexibility to establish

connectivity in sectors for which traditional antennas are not currently practical or feasible.



#### ΜΔΥ

#### HERMES DATACOMMS OPENS AN OFFICE IN ERBIL

Hermes Datacomms, part of the SpeedCast Group, has opened its newest office in Erbil, Iraq. The new facility is in direct response to increasing demand for services from the oil and gas sector in Iraq and will enable the SpeedCast Group to deliver a higher level of service and support in this rapidly growing market.

Osama Oulabi, Business Unit Manager, Middle East, said, "Iraq has been a strategic market for Hermes for the past three years. With the opening of the company's newest office in Erbil, Northern Iraq, we are well-



O3b Networks announced a multi-year



## BROADCASTPRO SATELLITEPRO 2016 Desktop Calendar



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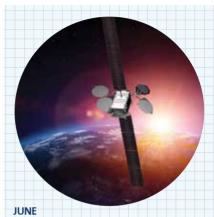
The calendar, which will be distributed with *BroadcastPro ME* & SatellitePro ME December 2015 issues and also at CABSAT 2016, gives your company an opportunity to be viewed for a whole month.





For submission enquiries, contact:

Sandip Virk, Group Sales Manager, Broadcast and Satellite Division Tel: +971 50 929 1845 Email: sandip.virk@cpimediagroup.com



#### **ABS SELECTS BOEING TO BUILD ABS-8**

ABS announced that it has selected Boeing Satellite International Inc. to manufacture the ABS-8 satellite. ABS-8 will replace ABS-7 at 116.1 degree East orbital location, and will also deliver significant expansion capacity for Asia, Russia and the Middle East. The satellite is expected to launch in 2017.

ABS-8 will be the third all-electric propulsion 702SP satellite ordered from Boeing that minimises the spacecraft's mass and maximises available payload. The spacecraft will have over 9 kW (kilowatts) of payload power and will be equipped with 50 active transponders.

#### **SEPTEMBER SAUDI ARABIA TO LAUNCH A SATELLITE EVERY TWO YEARS**

King Abdulaziz City for Science and Technology designed a 12-year space programme including the launch of a small satellite every two or three years.

Prince Turki bin Saud bin Mohammed, President of KACST, made the disclosure in a speech before a ceremony recently held by NASA to mark the 30th anniversary of launching Discovery.

He said that KACST is scheduled to implement a satellite launching programme starting from 2019 through 2020 and 2023, in collaboration with a team composed from NASA, Stanford and the German Space Agency.

#### THURAYA PARTNERS WITH AIRTEL GHANA

Thuraya Telecommunications, in partnership with Airtel Ghana, announced its strategic launch to provide Ghanaians with 100 percent coverage through terrestrial and mobile satellite connectivity.

Thuraya's satellite-based solutions help bridge the digital divide both for individuals and businesses. The agreement with Airtel Ghana gives people living in rural and remote areas greater and clearer access to voice and data connectivity.

Bilal Hamoui, Chief Commercial Officer at Thuraya, said: "We are working in partnership with Airtel Ghana to make it possible for people to be connected at all times. Our voice communications and broadband services are reliable and robust, and they connect even the most remote and inaccessible places."

**OCTOBER EUTELSAT'S** CEO TO STEP **DOWN IN** MARCH 2016 **Futelsat** announced



Rosen has decided to step down from his position as Chief Executive Officer in March 2016. He will remain in the role of non-executive Chairman of the Board of Directors of Eutelsat until the end of his current mandate in November 2016, at which point his mandate will be submitted to the Annual Shareholders' Meeting for renewal.

Eutelsat's Board of Directors has elected Rodolphe Belmer as the successor to Michel de Rosen in the role of Chief Executive Officer. effective from 1 March 2016. In order to create the conditions for a smooth transition process he will join Eutelsat on 1 December 2015 as Deputy CEO, alongside Michel Azibert, Deputy CEO and Chief Commercial and Development Officer.



#### **EUTELSAT 8 WEST B LAUNCHES FROM** KOUROU

Arianespace's VA225, carrying the Eutelsat 8 West B and Intelsat 34 satellites, lifted off on August 20th, from the Guiana Space Center, Europe's Spaceport in Kourou, French Guiana.

Eutelsat 8 West B is the 30th satellite orbited by Arianespace for Eutelsat, the leading satcom operator in Europe, North Africa and the Middle East, and number three worldwide in terms of revenues. Arianespace currently has three more satellites in its order book to be launched for Eutelsat.

#### NOVEMBER

#### ARABSAT'S BADR-7 LAUNCHES FROM FRENCH **GUIANA**

Arabsat's first 6th generation satellite, "Badr-7" was launched successfully this morning from Kourou base on the island of French Guiana in South America, by the Ariane V Rocket.

The Ariane 5 rocket blasted off at 21:34 GMT on Wednesday 11th, carrying Badr-7, a Eurostar satellite, manufactured by Airbus Defense & Space with Thales Alenia Space, to be placed in Arabsat exclusive orbital hotspot 26° East.

This step came as part of Arabsat's expansion projects, and it is the sixth satellite launched during the past seven years on three different orbital positions.





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#### Natasa Glisovic

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#### Eutelsat signs capacity contract with BAZ

Eutelsat sealed a three-year contract with the Broadcasting Authority of Zimbabwe (BAZ) for Ku-band capacity on the EUTELSAT 3B satellite. The capacity will be used to deliver twelve free-to-view channels to a nationwide network of 48 Digital Terrestrial Television (DTT) transmitters so that Zimbabwean viewers can benefit from improved image quality and a wider choice of television programmes.

The agreement between BAZ and Eutelsat will accelerate the digital transition of Zimbabwe's national broadcasting network that reflects the general move across Africa to a fully digital environment.

The new service is currently being tested and is due to launch during the first quarter of 2016. The project is managed by BAZ, which is also working with Transmedia, the country's national signal carrier; ZBC, the state broadcaster; and



Huawei for sourcing of digital equipment, including set-top-boxes for user homes. Huawei will also uplink the digital multiplex from BAZ teleport facilities in Harare to the EUTELSAT 3B satellite.

Obert Muganyura, CEO of the Broadcasting Authority of Zimbabwe, said: "Access to EUTELSAT 3B will transform our country into a nationwide provider of digital broadcast services. With this Eutelsat partnership and our project partners, the stage is set for Zimbabwe to accelerate the transition from analogue to digital TV in order to deliver improved service to viewers nationwide."

Michel Azibert, Eutelsat's Chief Commercial and Development Officer, added: "This contract with the Broadcasting Authority of Zimbabwe marks a first step in our involvement in Zimbabwe's digitisation process and reflects the increasing contribution of satellite to rapid and efficient digital transition. We are delighted to see EUTELSAT 3B's increasing weight in the African landscape and to be part of this continent-wide move to digital."

#### Yahsat awards contract to Hughes for expansion

Yahsat awarded a major contract to Hughes Network Services, to deliver its JUPITER System and related network operations services in support of its expansion across Africa in 2017. This partnership will provide satellite communications solutions that help grow the Information and Communication Technology (ICT) sector and develop employment opportunities.

The multi-year contract calls for Hughes to supply its JUPITER System gateways and broadband terminals, together with its Operating Support System (OSS) and Business Support System (BSS) solutions, as turnkey outsourced managed services.

With the launch of Al Yah 3, the new Kaband satellite scheduled for service launch in 2017, and associated ground infrastructure, Yahsat will expand its footprint in the region. Al Yah 3 is Yahsat's third satellite and launches within less than a decade of operation. This new addition will bring additional connectivity into 18 African countries for consumers, SOHO and enterprise segments,

underpinning the UAE space and satellite industry's aggressive growth intentions.

Commenting on the new contract, David Murphy, Yahsat's Chief Commercial Officer, said: "This new partnership signifies a major milestone for the successful roll-out of services from Al Yah 3. It's a great example of a UAE organisation using home-grown talent to serve businesses and consumers in countries around the world. We have been operating across Africa since 2012; today, we are the market leader with established service partners in nine countries. The contract with Hughes further expands our growth plans, enabling next-generation broadband services across the continent."

Bahram Pourmand, Executive Vice President, Hughes International, said: "Yahsat's decision to expand our relationship is a testament to the high quality of both Hughes technology and outsourced network operations. Our JUPITER System has proven to be the platform of choice globally to power high-throughput satellite



services, and we are confident that it will further strengthen Yahsat's market-leading presence in the region across the African service footprint of Al Yah 3."

Al Yah 3 will extend the company's commercial Ka-band coverage to 60% of Africa's population. This procurement of the Jupiter platform is in preparation for the new satellite.



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#### Liquid Telecom chooses Newtec Dialog for expansion

Newtec announced that Liquid Telecom has chosen the Newtec Dialog multiservice platform to enlarge and improve its current VSAT services, with more applications and features for both current and new customers. Extending its current relationship with Newtec, Liquid Telecom will use the Newtec Dialog platform to expand its service portfolio towards new markets.

The first Newtec VSAT platform with Liquid Telecom became operational in early 2014. Since then, Liquid Telecom has been able to deploy thousands of Newtec VSAT terminals. Liquid Telecom will operate the Newtec Dialog hub alongside its current Newtec Sat3Play broadband hub, allowing it to expand its current satellite services to more advanced business-to-business applications and deliver reliable cellular backhaul connections for mobile operators throughout Africa.

"We chose to add Newtec Dialog to our existing infrastructure, as its scalability and flexibility enables us to expand our satellite business and the applications we offer in a cost-effective way," said Scott Mumford, Head of Satellite Services at Liquid Telecom. "The on-board technology ensures the highest efficiency, meaning our existing customers will directly experience the benefits."

As a multiservice platform, Newtec Dialog guarantees optimal modulation and bandwidth allocation, whether it is being used for enterprise, consumer broadband, cellular backhaul or mobility in all networks. It features Newtec's patented return link technology, Mx-DMA, which combines the best features of MF-

TDMA and SCPC technologies, making Liquid Telecom's VSAT services more bandwidth efficient for larger customers.

"First of all, we are very grateful for the confidence Liquid Telecom expresses with the awarding of this new contract and are convinced Newtec Dialog will be able to meet Liquid Telecom's needs, particularly in entering new markets, something which is becoming more and more important for operators," said Serge Van Herck, CEO at Newtec.



#### VT iDirect releases SatHaul Optimisation Suite

VT iDirect announced the release of the iDirect SatHaul Optimisation Suite. This set of features is designed to enhance cellular backhaul solution iDirect SatHaul, which helps mobile operators create a highly efficient and cost-effective solution for connecting rural and remote locations over satellite. iDirect is a world leader in satellite-based IP communications technology.

Today, mobile operators are deploying networks to meet the strong end-user demand for greater bandwidth to support advanced services and applications. Innovations in satellite technology and ground infrastructure are making the technology a cost-efficient solution to extend network coverage and enable higher throughput capabilities at the edge of the

network. The iDirect SatHaul solution is designed to help mobile operators expand coverage in a smart and profitable way. When used for 4G/LTE networks, the iDirect SatHaul Optimisation Suite enhances the end-user experience and at the same time reduces the amount of bandwidth needed for voice or data, redefining the business case for serving rural and remote markets or specialised environments like emergency services or mobile networks.

The iDirect SatHaul Optimisation Suite will run on the new X7-EC, a variant of the iDirect X7 satellite remote that has been enhanced with extended processing capabilities. The X7-EC has all of the standard iDirect features that make it a powerful remote, including dual demods, multicast

and advanced mobility features, along with embedded computing capabilities to run high-speed applications at the edge of the network. Having the optimisation suite embedded within the satellite router delivers a single-box solution to the mobile operator, providing a more cost-effective solution and decreasing points of failure.

"Global mobile data traffic continues to grow at an outstanding pace, with increased demand for 4G/LTE services in urban environments, remote and rural locations, and even in situations on the move," said David Harrower, VP Business Development, iDirect. "As mobile operators roll out their plans for servicing this growing demand, satellite will play a major part in the solution."

#### Prysmian Group showcases cable solutions at the show

Prysmian Group showcased its solutions for the African market this week at AfricaCom. On display will be an extensive display of its wideranging cable, connectivity and deployment technology solutions.

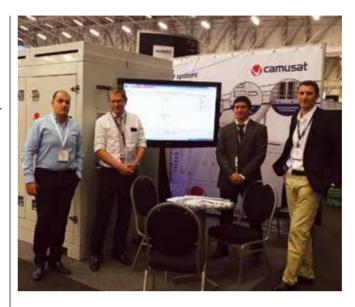
Prysmian's Director of Telecom Marketing and Technical Sales Support, Alain Bertaina, discussed cost-efficient solutions to improve connectivity across Africa. In his presentation he gave an overview on fibre benefits and the most recent implementations in both telecom and hybrid telecom-energy formations, thus demonstrating how a quality infrastructure is fundamental to guarantee high-level services and high-speed broadband, essential aspects to guarantee future growth and development to the region.

Prysmian also used the event to showcase its RetractaNetXS solution. In both aerial and direct buried underground drop solutions, the new RetractaNetXS is designed for "value innovation". The solution combines integrated connectivity products and innovative tools to deliver a cost-effective solution for futureproof fibre roll-outs which has been proven consistently through several benchmarks to be lower for the whole project – including maintenance and installation – than comparative solutions.

Also on show at AfricaCom, Prysmian presented its latest cable and fibre management options, including its SiroccoXS portfolio, which covers a comprehensive range of blown fibre and blown cable solutions for external and internal applications, tubing and fibre management options. All these solutions use micro and macro bendimmune fibre BendBrightXS, which has been designed to secure the use of fibre's spectral abundance to solve bandwidth bottlenecks.

Another product using BendBrightXS is FlexTube, which provides significantly easier handling and rapid access to fibres and has been recently installed in Australia with a record-breaking 4.16 f/mm2 fibre density, allowing the customer to halve the cost per installed fibre. Visitors to the event will be able to view FlexTube at Prysmian's booth, alongside the pre-connectorised VertiCasaXS cable and pre-terminated connectivity units.





#### Camusat, Eutelsat partner for turnkey solutions

Eutelsat and Camusat entered into a partnership agreement that will enhance turnkey connectivity solutions for mobile operators in Sub-Saharan Africa.

The agreement will drive growth of mobile communications, which have dramatically expanded in Sub-Saharan Africa but are still under-developed in the remote rural areas where over half of Africa's population lives. In the vast territories yet to be covered, terrestrial infrastructure would require heavy investment over several years to link unconnected communities to mobile networks.

Eutelsat and Camusat are drawing on their expertise in connectivity markets in Africa to provide mobile operators with turnkey solutions. Eutelsat can deliver satellite coverage of all African territories, while Camusat provides expertise in telecom infrastructure deployment, including building, providing electrical power and maintaining towers for mobile telephony networks via more than a thousand employees in Africa.

Michel Azibert, Eutelsat's Commercial and Development Director, said: "This partnership marks a new step in our collaboration with Africa's mobile telephony operators. In addition to regular lease of satellite capacity to support network development, our new partnership with Camusat equips us to offer solutions covering the entire communication chain with maximum flexibility and irrespective of location."

Camusat CEO Richard Thomas added: "This new partnership with Eutelsat in a tremendously dynamic market represents a future growth driver from which our mobile operator clients will be able to derive maximum benefit by extending the limits of their markets. This agreement will ensure connectivity for communities who have remained beyond reach of mobile networks." PRO

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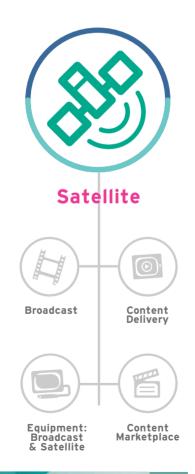
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#### Introduction

On December 28, 2014, an Air Asia flight travelling from Indonesia to Singapore plunged into the Java Sea. Tragically, all 162 passengers on board were killed. In the hours that followed, search and rescue teams on land and at sea began the difficult task of searching for the victims and the aircraft wreckage.

BASARNAS (Badan SAR National) - Search & Rescue

"This solution contributed greatly to the speedy location of the missing Air Asia plane, as existing radio systems onboard the ships were easily configured"

AIR MARSHAL F. H. BAMBANG SULISTYO, S. SOS, M.A.P, Head of the SAR Agency

Indonesia is one of the world's largest archipelagic countries, with 17,506 islands and a population of 253 million people. The country is flanked by the continents of Asia and Australia and the Indian and Pacific oceans. Indonesia has a strategically strong geographic and economic position as it forms part of the Malaccan Straits, from which it leverages global trade and tourism.

However, this geographical position also places Indonesia on the brink of natural disaster, as it lies on four active tectonic

#### SatStudy: Air Asia

plates: the Indo-Australia, Eurasia, Pacific and Philippines plates. Indonesia also sits in the middle of the Ring of Fire, an area in which earthquakes and volcanic activity occur frequently, as it is home to some 130 active volcanoes.

The government of Indonesia is fully responsible for the safety and security of citizens facing natural disasters. It deploys and relies on the National Search and Rescue Agency (BASARNAS), which plays a critical role during disasters. BASARNAS is committed to saving lives, and its vision is to conduct successful Search and Rescue (SAR) operations efficiently, credibly and safely, anytime and anywhere.

Providing SAR communications to remote island areas is an absolute necessity in ensuring efficient operations. BASARNAS has branch offices on many of these remote islands. The difficulty is that a lack of infrastructure makes communication extremely difficult.

The Thuraya integrated communications solution deployed by BASARNAS helped solve these communications problems.

#### Challenges

The Indonesian Search & Rescue Agency



"We were privileged to work with BASARNAS and PT MSS, our local service partners, in developing a tailor-made solution integrating technology"

DAVID MOSS, Director of Government Services, Thuraya

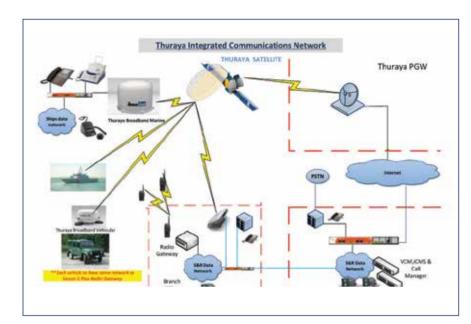
has offices scattered around the country. Many, however, are on remote islands with little to no infrastructure. The lack of communication technology from one island to another proved to be one of the biggest challenges in the search to locate Air Asia OZ 8501.

Fortunately, the Balikpapan branch is fully equipped. Their radio gateway was configured into a user group, allowing crew on board ships to talk directly to each other and to the Search & Rescue agency over the radio gateway. Vital messages were then passed on to headquarters over the Thurava IP data link.

Ships fitted with Thuraya IP and Thuraya NettedComms allow crew to use a Push to Talk (PTT) function wherever they are. This means it is not essential for them to be based so close to a branch office in order to communicate effectively.

David Moss, Director of Government Services, Thuraya, said: "Thuraya has a corporate directive to put our technology to best use in saving and improving lives. We were privileged to work with BASARNAS and PT MSS, our local service partners, in developing a tailor-made solution integrating technology from Thuraya,





#### **Key requirements for BASARNAS**

- The integration of reliable, low-cost voice and data communication solutions linking remote branch offices with headquarters in Jakarta
- A fully integrated voice and data communication solution for maritime operations integrating existing command & control systems
- · Existing SAR vessels with legacy phone and data systems to interface with the

- SAR agency's headquarter's core system
- Radio systems integrated into a common Push to Talk (PTT) network
- Improved data throughput and call toll quality, and reduced costs with total reliability
- Robust satellite terminals that cope with adverse weather conditions and require low power consumption

Ultra AEP and Speakerbus to meet the operational requirements of BASARNAS. We take pride in the fact that the technology assisted significantly during the search effort for Air Asia OZ 8501."

#### Background

PT Mega Sarana Satelit (PT MSS), one of Thuraya's service partners, is based in Jakarta. Together with Thuraya, PT MSS gathered market-leading technology partners to provide an advanced integrated communications solution to meet the requirements of the SAR agency.

Equipment with proven reliability in adverse conditions, often used by military organisations, was brought in. The overall network incorporated existing

communication assets already owned by BASARNAS. These run over a core network of Ultra Electronics routers, with Push-to Talk (PTT) NettedComms being provided by Speakerbus.

#### Conclusion

The search operation for the missing Air Asia Flight QZ 8501 is one of the most successful large-scale operations BASARNAS has ever conducted. The search was conducted over 80 days, cost 570 million Rupiah, and involved the deployment of hundreds of trained divers and volunteers. More than half of the victims and countless pieces of the plane's wreckage were found.

Air Marshal F. H. Bambang Sulistyo, S.

Sos, M.A.P. Head of the SAR Agency, said: "Our search and rescue coordination officers at HQ communicated directly with commanders of the deployed ships conducting the search. This was due to the early adoption of the Thuraya NettedComms integrated communications solution, which was installed in remote offices and in the SAR coordination centre in Jakarta. This solution contributed greatly to the speedy location of the missing Air Asia plane, as existing radio systems onboard the ships were easily configured into the Thuraya NettedComms system."

#### Equipment

BASARNAS, with a pressing need to save lives, deployed the flexible Thuraya NettedComms solution. The data connection linking headquarters and remote branch offices was conducted using Thuraya IP.

At the headquarters, the telephone system and data network, connected to Ultra's router equipment and linked to additional ultra-routers, provided data that was transmitted over the Thuraya link to provide crucial information.

The Thuraya NettedComms solution from Speakerbus provided a PTT capability that enables users to talk immediately to a pre-defined group of people with a single press of a button. The network, managed at BASARNAS' headquarters, is easy to use with minimal training, thus saving valuable time.

Thuraya NettedComms uses technologies ranging from simple analogue voice to leading-edge Voice over Internet Protocols (VoIP) to meet this requirement. This flexibility ensures the solution is fit for purpose, uses the best infrastructure available and is always simple to use.

Each remote branch office is equipped with the PTT system, which includes a radio gateway that is connected to BASARNAS' existing radio systems.

For this mission, staff at BASARNAS headquarters configured a radio gateway linking the branch office closest to the search area into a dedicated PTT user group. This enabled ships conducting the search to talk directly to headquarters from existing ship radios. PRO

### Rise of **NanoSatellites**

MBRSC has launched the NanoSatellite Outreach Programme (NSOP), which provides the opportunity for all universities across the UAE to nominate a group of their students to design, build and launch a nanometric satellite in coordination with the Centre

The programme is primarily designed to enhance the capabilities and skills of university students from various engineering disciplines, in order to develop the human infrastructure necessary for the space sector in the UAE. In the same context, MBRSC held a meeting attended by representatives from all universities, who had the chance to learn about the programme's scientific and educational goals.

The programme was announced during UAE Innovation Week, in line with the directive of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the UAE, to mark 2015 as the Year of Innovation. For his part, His Highness Sheikh Mohammed bin Rashid Al Maktoum, UAE Vice President and Prime Minister and Ruler of Dubai, launched the National Innovation Strategy, aimed at contributing to the achievement of the UAE's Vision 2021.

The importance of NSOP lies in the fact that it is a continuation of the educational project of the Nayif-1, the first UAE nano-satellite developed by seven Emirati students from AUS under the leadership and supervision of MBRSC. Nayif-1 will have an active control system that hadn't previously been launched into space aboard 1U CubeSat (10x10x10cm). This control system is designed to accurately locate the satellite in space and preserve its stability during operation.

"Apart from being the main destination for the most prominent innovators in the region, the main purpose of the UAE Innovation Week is to encourage a culture of creating, developing and inventing in our societies. Thus, we took it upon ourselves to equip our youth with the scientific skills they need, in partnership with universities, so that they become the optimal driving and investment force behind achieving our Vision, aiming for the UAE to be one of the most innovative countries in the world and the UAE to become



"Apart from being the main destination for the most prominent innovators in the region, the main purpose of the **UAE Innovation Week is** to encourage a culture of creating, developing and inventing in our societies. Thus, we took it upon ourselves to equip our youth with the scientific skills they need"

YOUSUF AL SHAIBANI. Director General, MBRSC

the best country in the world by 2021," said Yousuf Al Shaibani, Director General, MBRSC.

"The creation of a stimulating environment and the necessary resources for students and young people is the key factor in turning their dreams into reality and in generating innovative ideas, which we experienced with the Nayif-1. Therefore, we decided to embark once again on the same path and to allow all universities in the UAE the chance to compete, offering students educational and training opportunities in the space field," he added.

Al Shaibani also said: "These educational programmes will have a major impact on academic institutions, space and advanced technology sectors. Innovative ideas highlight the UAE's position as a pioneering country in the region and the world through a pivotal sector, impacting people's daily lives and serving as a catalyst for services provided by government to society." 📖







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